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June 23, 1970

FILE 582-518 Cont
HK

Mr. Howard K. Kothe
Watson Leavenworth Kelton & Taggart
100 Park Avenue
New York, New York 10017

RE: Tobacco Product Containing Nicotine-Releasing Agent and Method for Utilizing the Same - PM #472; Helf. #582-518 con't.

Dear Howard:

Here are my comments regarding the first Office Action on this case. My references are to application S.N. 603,419 as we have no copy of the CIP. The German patent #1,185,164, Meyer et al, is titled "Process for the Production of Activated Carbon from Soot." The word "Russ" (soot) may also be translated "Lampblack" or "carbon black." The patent teaches how to make activated carbon from this material, and not that it is equivalent to activated carbon. It is precisely this lack of activation (development of large internal surface area) that makes carbon black useful in the practice of my invention.

Both Allen and Irby et al specify carbon only in the activated form for the practice of their inventions. If one were to follow their teachings in combination with Bavley et al, as an alternative to Bavley's disclosed ion exchange resin as a reservoir for nicotine in the filter, the nicotine would be held very well, in fact so well that very little of it would be transferred to the smoke. The result would be an uneconomical product, because a very large amount of expensive nicotine would have to be present to achieve a realistic enhancement of nicotine in the smoke. This is illustrated by the results shown in Example 3 of the specification. It was only by using a weak adsorbent lacking internal surface (non-activated carbon black) that I was able to realize a practical amount of nicotine transfer to the smoke.

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It may be noted further that the approach disclosed by Allen with volatile aromatic substances, whereby the adsorbent carrying them is incorporated directly in the tobacco, would be undesirable with nicotine. The tenacious activated carbon would allow the nicotine to be subjected to combustion or pyrolysis conditions even more than is nicotine in the tobacco leaf before it was released to the smoke. It should also be noted that Irby et al specify (col. 2 l. 58) that their "adsorptive materials are also capable of removing from tobacco smoke such volatile constituents as . . ." The carbon black of my invention would be incapable of removing selectively any substantial proportion of the components listed. It could only take out what might be trapped with the particulate matter as would any filter material whatsoever having comparable resistance.

Bavley employs ionic attraction to hold the nicotine with ion exchange resin; Allen, and Irby et al, employ strong adsorbent forces to hold flavorants. The present carrier is unlike either of these types and therefore is not suggested by these patents.

Very truly yours,

Les

G. Esler Inskeep
Assistant Patent Officer

GEI/bsf
cc: Dr. P. A. Eichorn

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